Health Care Trends

Clem Bezold, Institute for Alternative Futures

National Organization of Nurse Practitioner Faculties
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Today’s Topics

- Futures Thinking
  - Trends, Forecasts, Scenarios & Vision

- Key Trends Shaping Health Care
  - In the Macroenvironment
  - Within health care, especially disruptive innovations
All health professionals should graduate with a sense of the likely futures for their field over one professional lifetime (e.g. 20 to 40 years); as well as the ability to anticipate.

I encourage you to include this capacity and the relevant scenarios in your curricula.
NPs and the Nursing Field have done significant work on their preferred futures. Those preferred futures should be developed into explicit scenarios, along with other likely futures and presented to your students.
Today I’ll talk about Key Trends shaping health care. We have done other scenario sets that are relevant for you to consider.
Futures Thinking: you are a Futurist!

How much change in last 20 years?
More or less change in next 20 years?
What Might Happen?

- Trends
- Forecasts
- Scenarios

What you prefer, what you want to happen

- Values
- Vision
- Goals
Futures Thinking: you are a Futurist!

- Trends & Environmental Scanning
Trends & Environmental Scanning

Search for Emerging Developments

Information & Communications Media

Artistic & Visionary Works
Scientific & Technical Literature
Internet, Social & Mass Media Coverage
Educational & Historical Materials

TIME

Quantity of Info

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Alaska highways susceptible to permafrost.

Futures Thinking: you are a Futurist!

Forecasts
Global supply forecasts according to the implied ultimate recoverable resources of conventional oil, date of peak production and the post-peak aggregate decline rate as of 2009; Yet by 2012 new sources and expanded recovery, including fracking, appear to extend Peak Oil out 20 to 30 years.

Data Modeling of Global Warming
Qualitative Scenarios to Inform Decisions: Climate Engineering Research

Source: GAO.
Climate Engineering: Past and Present

Past

FIXING THE SKY

RESTORING THE QUALITY OF OUR ENVIRONMENT

The climatic changes that may be produced by the increased CO₂ content could be deleterious from the point of view of human beings.

The possibilities of deliberately bringing about countervailing climatic changes therefore need to be thoroughly explored.

Present

HACK THE PLANET

The tinkers awaken

Number of research papers on geoengineering published per year

[Graph showing the number of research papers per year from 1991 to 2010, with a forecast for 2011 and 2012.]
Futures Thinking: you are a Futurist!

Scenarios
Scenario Zones

Justice

Peace

Sustainability

Depression

Scarcity

Instability

Zone of High Aspiration

Zone of Conventional Expectations

Zone of Growing Desperation
Scenario Archetypes

- Expectable/Most Likely (Alpha)
- Challenge/Hard Times (Beta)
Scenario Archetypes, cont.

- Visionary (Delta)

- Visionary (Delta)
Two IAF Scenario Reports

Primary Care 2025
A Scenario Exploration

Vulnerability 2030
Scenarios on Vulnerability in the United States
Futures Thinking: you are a Futurist!

- Vision
Creating preferred futures, driven by your aspirations
Aspirations Model

- Empowered
- Dis-Empowered

Circumstances

Explanations
- Rationalization
- Justifications

Vitimization
- Guilt
- Fear
- Anger
- Hurt
- Deprivation
- Loss

Behavior

Aspirations

I AM

Technical Learning

Profound Learning
Trends
Key Trends Shaping Health Care

- In the Macroenvironment
- Within health care, especially disruptive innovations
Key Trends in the Macroenvironment Shaping Health Care

- Recession or Recovery?
- Federal Debt & Deficits
- Internet, Social Media, Virtual Reality
- Transparency, Empowered Consumers
- Aging
Key Trends in Health Care

- Unsustainable health care costs
- Health reform (implementing ACA, or not)
- Pressure for cuts in Medicare and Medicaid payments
Key Trends: Disruptive Innovations
Disruptive Innovations

Transformation will be accelerated by Disruptive Innovations

Some characteristics of disruptive innovations:

- **Technological Enabler** – purpose is to simplify
- **Business Model Innovation** – profitably deliver simplified solutions in affordable and convenient ways
- **Value Network** – commercial infrastructure of companies with disruptive, reinforcing economic models
- **Starts off the Radar Screen**

Disruptive Innovations

Business Model Innovations

- Quality - Triple Aim
- The Home Team – PCMH to CCHH
- Integrated, bundled payments
- Medical tourism (home & abroad)
- Transparency of costs
- Retail clinics

Emerging Technologies

- Personalized medicine & care
- EMR & PHR
- Digital coach/navigator
- Care in virtual space
Health Care Quality is Evolving

The IOM 6 AIMS
# Major Factors Shaping Health

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Broad View of Population Health

Health Role

Health Care Role

Determinants & Factors

Individual Risk Factors

Intermediate Outcomes

States of Health

Quality of life, Able to do your Job

Well-Being Thriving Resilient

Genetic Endowment

Prevention & Health Promotion

Behavioral Risk Factors

Disease & Injury Burden

Medical Care

Health & Function

Morbidity & Death

Genetic Endowment

Socio-economic factors

Physical Environment

Behavioral Risk Factors

Physiological Risk Factors

Resilience

Medical Care

Health & Function

Morbidity & Death

Well-Being Thriving Resilient

Disparities
The Home Team – from Patient Centered Medical Home (PCMH) to Community Centered Health Home (CCHH)
The Home Team – PCMH

The patient-centered medical home (PCMH) is a centerpiece in defining primary care. Its features include:

- Enhanced access to care
- Care continuity
- Practice-based team care
- Comprehensive care
- Coordinated care
- Population management
- Patient self-management
- Health IT
- Evidence-based
- Care plans
- Patient-centered care
- Shared decision-making
- Cultural competency
- Quality measurement and improvement
- Patient feedback
- New payment systems

The Home Team – PCMH

Life-long continuity of care

Electronic record

Coordination of care

Shared decision-making

Education and coaching

Collaborative team of providers

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Who’s on the Team

- Health care personnel and teams – all practicing at top of licenses
- MD/DOs; NPs, PAs; DCs, DPTs; RNs; PharmDs, Behavioral; MAs and CHWs

Incl. Community Health Workers going into homes with the intelligence and caring of the system
The Home Team – from Patient Centered Medical Home (PCMH) to Community Centered Health Home (CCHH)
Community Centered Health Home = PCMH plus:

- Work with community partners to collect data on social, economic, and community conditions
- Aggregate health and safety data; systematically review health and safety trends
- Identify priorities and strategies with community partners and coordinate activity
- Act as community health advocates
- Mobilize patient populations
- Strengthen partnerships with local health care organizations and establish model organizational practices
Medical tourism (home & abroad)

Medical Tourism
Your insurance company waives deductibles & co-pays plus covers travel costs for you and your family if you have your heart surgery overseas.

Joint Commission International
## Medical tourism (home & abroad)

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Source: BusinessWeek 3/24/08, p 36; Data: Thai Public Health Ministry

1.5 million medical tourists visited Thailand last year alone, with growth expected to hit 2 million by 2010
Competing with Low Cost Surgery

Hannaford Bros offers employees hip and knee joint replacement surgery in Singapore.

- A Boston hospital asks to compete
- Surgery costs $9,000 in Singapore, $43,000 in U.S.
- How do you reduce costs by 75%?
Integrated Payments

• ACOs will share risk, integrate payments with systems, moving toward capitation.
Payments – Bundled

One fee for entire episode of care

Bundle design important for correct outcome.

“Develop a single payment for selected treatments such as cardiac bypass graft that covers related services before, during and after surgery”

Who manages bundle and how is it allocated?
Success requires collaborations, good processes
Health Cost Transparency

- Consumers, Payers & Providers will know:
  - How much it costs
  - How much health care providers get
- Comparative Effectiveness of Therapies, Providers & Technologies
- Regions: Grand Junction, CO vs. McAllen, TX; Minnesota vs. Florida or Hawaii vs. New Jersey
- Angie’s List, Jill’s List, PatientsLikeMe.
Retail Clinics

- No appointment, out in 15 minutes
- Satisfaction rating 4.9 out of 5
- Nurse practitioner – 40% savings
- Could treat 100 common conditions
- Competing against non-consumption
Wal-Mart alone has 130 in-store retail health clinics

Shopping Malls now have medical spas that do cosmetic procedures

Walgreen’s new Health and Wellness division: 700 worksite health and wellness centers and in-store convenient care clinics
CVS – 630 in pharmacies
Target – 56 in stores
Disruptive Emerging Technologies
Personalized Medicine and Care

- Genomics, Biomonitoring
  - Epigenetics, Zipcodeomics
- Personalized definitions of “normal” and disease
- Massive data on treatments & side effects analyzed and results used for personalized prescriptions for individuals
Health Care Knowledge Advances

Electronic Medical Records

“Dr. Watson” Expert Support for providers

Digital Health Coach (“avatar”)

Personalized Vital Signs

Digital health agents, gaming, social networking
Electronic Medical Records
Health Care Knowledge Advances

- Personalization
  - Biomonitoring
  - Genomics, epigenetics, zipcodeomics
Passive Vital Sign Bed Monitor

Mattress pad to measure:

- Sleep quality
- Pulse (and HRV)
- Breathing
- Movement / restlessness
- Bed exit
- Subject position / turning
- Body temperature
- Exploring measuring BP
Biomonitoring through the skin

- A microsensor painlessly and continuously extracts biological samples
- Biological samples that can be analyzed for over 200 biomarkers

- A wearable, unobtrusive bandage
- Improved comfort = greatly improved compliance
- Molecular epidemiology
Biomonitoring
The Home & the Doctor’s Office
Digital Health Coach Aided By Technologies

Wellness & disease mgmt. apps

Digital coach ("avatar")

Noninvasive biomonitoring

Big name vendors offer free avatar-based health coaching if other integrated health products and services are purchased

Personal health record

Facilitated Disease Network
Early Detection of Precancer: Intraepithelial Neoplasia

Cancer will have biomarkers that allow early detection, prevention and better treatment - Intraepithelial Neoplasia (IEN) is a major candidate.

Self-Care

- Biomonitoring devices
- Personal health record
- Wellness & disease management apps
- Digital health coach
- Telemedicine

Facilitated disease network

Home dialysis
Angie’s List, Jill’s List for choosing providers

Bring care continuum to patient’s home
Virtual Care

Patient ↔ Personal digital health advocate ↔ Providers
From Trends to Scenarios

Justice
Peace
Sustainability
Depression
Scarcity
Instability

Zone of High Aspiration
Zone of Conventional Expectations
Zone of Growing Desperation
Primary Care
2025 Scenarios

1. Many Needs, Many Models
2. Lost Decade, Lost Health
3. Primary Care that Works for All
4. I Am My Own Medical Home

www.altfutures.org/primarycare2025
Thank You!

For more information, visit

www.altfutures.org